



Illinois Department of Transportation

Memorandum

To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS

From: Becky Koehler
Bureau Chief of Personnel Management

Subject: Technical Vacancy

Date: January 24, 2018

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement January 26, 2018 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m. on Thursday, February 8, 2018**. Applications will not be accepted after that time and date.

NOTE: Applications will be accepted from qualified permanent DOT employees only. A copy of each applicant's ACTIVE Illinois Professional Engineer License must accompany application for this position. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.

If you have any questions, please contact the Bureau of Personnel Management at 217/782-5594.

CE V

Physical Tests Engineer
Region 2/District 3/Project Implementation
Highways Project Implementation
Ottawa

Attachments
42481

Technical Applications [PM1080 rev 6/1/17](#) ****must be received** by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) or emailed to DOT.CO.BPM.EmploymentApplications@Illinois.gov by **Thursday, February 8, 2018, 4:30 p.m.** Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

NOTE: Applications will be accepted from qualified permanent DOT employees only. A copy of each applicant's ACTIVE Illinois Professional Engineer License must accompany application for this position. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.



**Illinois Department
of Transportation**

An Equal Opportunity Employer

Position Summary Sheet

Classification:	Civil Engineer V	Salary Range:	\$6,315 - \$10,210
Position Title:	Physical Tests Engineer	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW115-23-53-203-30-01	IPR#:	42481

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation / Region 2 / District 3 / Bureau of Project Implementation / 700 East Norris Drive, Ottawa, IL

Description Of Duties:

This position plans, directs and coordinates the material testing and inspection activities required to ensure the acceptability of materials incorporated into highway projects within the district, other districts, and other states and governmental agencies.

Special Qualifications:

Required:

- Current Illinois Professional Engineer license
- Valid driver's license
- Statewide and out-of-state travel

Desired:

- Nine years of experience in civil engineering of which at least five years should be in the specific area of materials testing, three years of which should have been supervising engineering functions
- Detailed knowledge of materials specifications, sampling methods, and test methods specifically aggregates and precast concrete
- Ability to supervise staff engaged in the sampling and testing of materials
- Ability to maintain cooperative relationships with departmental and industry staff
- Strong oral and written communication skills

Shift/Remarks:

7:00 am - 3:30 pm / Monday – Friday

THIS POSITION IS COVERED UNDER THE REVOLVING DOOR PROHIBITION (RDP) POLICY.

****Technical Application PM1080 (revised 6/1/17) is required. No previous version of the PM1080 will be accepted.**

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE: January 2018 **POSITION:** Physical Tests Engineer
APPROVED BY: Michael Short **OFFICE:** OHPI/Region2/District 3
CODE: PW115-23-53-203-30-01 **REPORTS TO:** Materials Engineer

POSITION PURPOSE:

This position plans, directs and coordinates the material testing and inspection activities required to ensure the acceptability of materials incorporated into highway projects within the district, other districts, and other states and governmental agencies.

DIMENSIONS:

Personnel:	4-8 (Direct)	10-15 (Indirect)
Number of Producer-Suppliers and Quarries:	110	
Number of Material Samples:	4,000	
Number of Lab Tests:	2,000	
Dollar Value of Material Inspected Annually:	\$50 to \$100 Million	

NATURE AND SCOPE:

This position reports to the District Materials Engineer. Reporting to this position is the Prestress Beam Inspector and the Area Testing Supervisor.

This position is accountable for supervising the inspection, testing and acceptance of all material produced in the district and used in the construction and maintenance of state highways and county and municipal projects both within and outside the district. This involves the sampling, inspecting, testing, certifying, and reporting of materials both at the source of production or at the jobsite. This service is also provided for local and county agencies who purchase materials with Motor Fuel Tax Funds, other state agencies, and occasionally for states other than Illinois. This position is unique because it requires the incumbent to develop rapport with a wide variety of producers, suppliers, contractors, local and county officials, and other state employees to achieve the objective of ensuring that materials meet applicable specifications.

The incumbent conducts analysis to determine the approval or rejection of materials that are borderline on specification limits. Frequently discrepancies arise between producers, suppliers and assigned inspector's test results. When this occurs, the incumbent investigates the disagreements thoroughly and resolves the situation. Other problems encountered include investigating the incorporation of unapproved or questionable material into highway projects; ensuring that staff are adequately trained before allowing them to make major decisions that could be embarrassing to the Department; reviewing the results on faulty material with staff before final rejection when substantial quantities are involved; and ensuring that inspectors are aware of the current applicable specifications. With the implementation of the Construction Quality Management Program (QC/QA), and in particular the Aggregate Gradation Control System (AGCS), the incumbent is responsible for each source's control program by the implementation of the warning and master band control concept, approving laboratory testing facility and equipment, and monitoring their technical personnel training. The incumbent's greatest challenge is ensuring that inspections, sampling, testing, and reporting to appropriate personnel occur within an allotted time frame and conform to established levels of acceptability while maintaining good working relationships for all involved.

The incumbent reviews reports submitted by inspectors; visits the various producer-suppliers for a first hand review of their and the inspector's operation; ensures compliance of the aggregate sources to the specified AGCS program; writes special provisions and provides technical assistance for writing specifications; investigates material failures occurring on construction projects; assigns personnel to inspection locations; coordinates and supervises the testing in the district laboratory of samples from within the section, the Geotechnical Section, the Mixtures Control Section, and Quality Assurance Section; evaluates and recommends for purchase specialized equipment for use in the bureau; advises producer-suppliers on policy procedures and specifications; investigates new sources of materials for highway use; notifies aggregate producers of the status of quality samples; and trains staff in new methods of testing.

Accountabilities are accomplished through:

Prestress Beam Inspector: who witnesses and conducts acceptance tests for specifically precast, prestressed concrete beams, and other materials; calculates test results; and prepares and submits reports to appropriate personnel in the district, other districts, and states.

Area Testing Supervisors: who samples, inspects, tests and certifies materials within a geographical area which are used in construction and maintenance to ascertain compliance with required specifications; inspects, samples, tests, and reports on fine and coarse aggregates for use in construction and maintenance projects involving federal, state and MFT funds.

Because of the technical and specialized nature of the various materials, the incumbent is given a wide latitude for making decisions and recommendations for acceptance or rejections. S/He relies on extensive engineering knowledge of construction materials and procedures, and a detailed knowledge of IDOT specifications, manuals, policies, memorandums, and ASTM and AASHTO specifications to aid in their decisions. S/He is constrained by applicable departmental/state/federal guidelines and practices.

Internal departmental contacts are made with district personnel from Construction, Operations, Program Development and Local Roads, the Central Bureau of Materials, and with Materials Engineers and technical personnel from each district. Outside contacts include the producer-suppliers and contractors, as well as various state, federal, county and local agencies concerned with the materials acceptance or rejection. Travel is required both within and outside the district.

The effectiveness of this position is measured by the prompt, efficient and accurate manner of staff sampling, inspecting, testing and reporting procedures, and the development of any new or revised methods.

PRINCIPAL ACCOUNTABILITIES:

1. Trains, supervises and motivates Physical Test personnel to meet section performance standards.
2. Coordinates material inspection and testing requirements of producer-suppliers through section to appropriate contractors, contracts, and/or resident engineers.
3. Implements and coordinates the AGCS Program.
4. Reviews reports for completeness and correctness submitted by section personnel.
5. Strives to resolve discrepancies and disputes on material compliance and/or specification in a cordial manner.
6. Ensures staff compliance to the Safety Code Manual.
7. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
8. Performs other duties as assigned.